

542,340

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065770 A1

(51) International Patent Classification⁷: **F02C 9/18**

(21) International Application Number:
PCT/SE2004/000058

(22) International Filing Date: 19 January 2004 (19.01.2004)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:
0300131-0 20 January 2003 (20.01.2003) SE

(71) Applicants (for all designated States except US): **ALSTOM POWER SWEDEN AB** [SE/SE]; S-612 82 Finspång (SE). **NORSK HYDRO ASA** [NO/NO]; N-0240 Oslo (NO).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HAMRIN, Stellan** [SE/SE]; Jägaråsvägen 82, S-736 93 Kungsör (SE).

(74) Agent: **STRÖM & GULLIKSSON IP AB**; Wallenbergs gata 4, S-583 35 Linköping (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

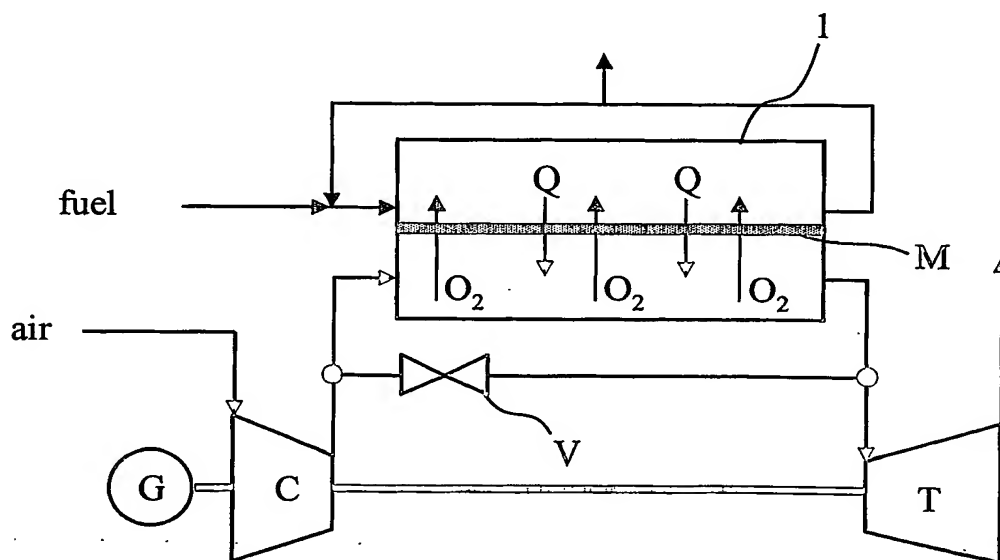
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONTROL OF A GAS TURBINE WITH HOT-AIR REACTOR



(57) Abstract: The invention relates to a gas turbine plant comprising a compressor (C), a turbine (T) and a hot air reactor (1), in which air is compressed in the compressor (C) and together with a fuel is delivered to the reactor in order to maintain combustion. The air heated in the reactor drives the turbine (T), so that control of the load of the turbine (T) is achieved by controlling the inlet temperature to the turbine (T) by mixing hot air from the reactor (1) with air from the compressor by means of a regulating valve (V) arranged between the outlet of the compressor (C) and the inlet of the gas turbine (T).

WO 2004/065770 A1